



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI-ABUJA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE
2025_1 EXAMINATION

COURSE CODE: EHS503

COURSE TITLE: WATER/AIR QUALITY MANAGEMENT

COURSE UNITS: 2 CREDIT UNITS

TIME ALLOWED: 1 ½ HOURS

TOTAL SCORE: 70 MARKS

INSTRUCTION: ANSWER ALL QUESTIONS

Q1 (a). Depending on the information required and the data availability, different types of dispersion models can be used to assess the impact of pollutant sources on air quality.

- i. Describe three types of the dispersion models citing relevant examples **18 marks**
- ii. List and describe any three of the data input requirements **6 marks**
- (b). Mention any two main tools for air quality assessment **1 mark**

Q2 (a). Briefly discuss Air Quality Index **10 marks**

(b). Write short notes on the following measurement of air pollution

- i. Passive sampling methods **4 marks**
- ii. Active sampling methods **4 marks**
- iii. Remote optical methods **4 marks**

(c). When air quality indices record high levels, government agencies deal with such instances by taking some measures. Highlight three of these measures **3 marks**

Q3 (a). With respect to pollution, define the following:

- i. Emission ii. Exceedance iii. Photolysis iv. Classic smog
- v. Particulate matter **5 marks**

(b). Explain the processes most commonly used for supplemental removal of residual suspended solids from the effluents of chemical treatment processes **15 marks**